AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (Currently amended) A low-profile multi-band antenna module, comprising:

a first low-profile antenna that transmits first radio frequency (RF) signals in a first RF band;

a second low-profile antenna that transmits second RF signals in a second RF band; and

a first RF multiplexer that combines said first RF signals and said second RF signals for transmission,

wherein said first antenna, said second antenna, and said first RF multiplexer are arranged on a panel.

2. (Original) The low-profile multi-band antenna module of Claim 1 further comprising:

a transmission line with a first end that communicates with said first RF multiplexer and that transmits said first RF signals and said second RF signals.

3. (Original) The low-profile multi-band antenna module of Claim 2 further comprising:

a second RF multiplexer that communicates with a second end of said transmission line and that separates said first RF signals and said second RF signals.

4. (Original) The low-profile multi-band antenna module of Claim 3 wherein said first RF multiplexer and said second RF multiplexer implement out-of-band rejection to minimize interference between said first RF signals and said second RF signals.

5. (Original) The low-profile multi-band antenna module of Claim 3 wherein said first RF signals are transmitted from said second RF multiplexer to a first transceiver and said second RF signals are transmitted from said second RF multiplexer to a second transceiver.

6. (Original) The low-profile multi-band antenna module of Claim 3 wherein at least one of said first antenna and said second antenna communicates with at least one amplifier.

7. (Original) The low-profile multi-band antenna module of Claim 6 wherein said transmission line supplies direct current (DC) power to said at least one amplifier.

8. (Original) The low-profile multi-band antenna module of Claim 1 wherein said first antenna and said second antenna are arranged on said panel in an orientation that minimizes electrical interference between said first and second antenna.

9. (Original) The low-profile multi-band antenna module of Claim 1 wherein a combination of said first antenna and said second antenna minimizes interference between said first RF band and said second RF band.

10. (Original) The low-profile multi-band antenna module of Claim 1 wherein at least one of said first antenna and said second antenna radiates circular polarization and vertical polarization that is ideal for satellite radio communication.

11. (Original) The low-profile multi-band antenna module of Claim 1 wherein at least one of said first antenna and said second antenna radiates circular polarization that is ideal for global positioning system (GPS) satellite communication.

12. (Original) The low-profile multi-band antenna module of Claim 1 wherein at least one of said first antenna and said second antenna radiates vertical polarization that is ideal for terrestrial communication.

13. (Original) The low-profile multi-band antenna module of Claim 1 wherein said first RF band is an industrial, scientific, and medicine (ISM) band, said second RF band is a satellite radio band, and said second antenna suppresses interference from said ISM band and is located adjacent to said first antenna.

14. (Original) The low-profile multi-band antenna module of Claim 1 wherein said first RF band is a personal communications services (PCS) band, said second RF band is a satellite radio band, and said second antenna suppresses interference from said PCS band and is located adjacent to said first antenna.

15. (Original) The low-profile multi-band antenna module of Claim 1 wherein said first RF band is a PCS band, said second RF band is a GPS band, and said first and second antenna are located at opposite ends of said panel to minimize coupling between said first and second antenna.

16. (Original) The low-profile multi-band antenna module of Claim 1 wherein said first RF band is a satellite radio band and said first antenna is located near a center of said panel.

17. (Original) The low-profile multi-band antenna module of Claim 1 wherein said first RF band is a first ISM band at a first frequency, said second RF band is a second ISM band at a second frequency, said first antenna is located adjacent to said second antenna, said first antenna suppresses interference from said second ISM band, and said second antenna suppresses interference from said first ISM band.

18. (Original) The low-profile multi-band antenna module of Claim 1 wherein said first RF band is a GPS band, said second RF band is an ISM band, and said first antenna suppresses interference from said ISM band and is located adjacent to said second antenna.

19. (Original) A low-profile multi-band antenna module, comprising:

a first antenna that transmits first radio frequency (RF) signals in a GPS band;

a second antenna that transmits second RF signals in a first ISM band;

a third antenna that transmits third RF signals in a second ISM band;

a fourth antenna that transmits fourth RF signals in a satellite radio band;

a fifth antenna that transmits fifth RF signals in a PCS band; and

a first RF multiplexer that combines said first, second, third, fourth, and fifth RF signals for transmission,

wherein said first, second, third, fourth, and fifth antenna, and said first RF multiplexer are arranged on a panel.

20. (Original) The low-profile multi-band antenna module of Claim 19 further comprising:

a transmission line with a first end that communicates with said first RF multiplexer and that transmits said first, second, third, fourth, and fifth RF signals; and a second RF multiplexer that communicates with a second end of said transmission line and that separates said first, second, third, fourth, and fifth RF signals